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(54) [Title of the Device] SATELLITE BROADCAST TUNER

(57) [Abstract]

[Purpose] An object of the present device is to provide a simple, compact, and easy-to-assemble satellite broadcast tuner by including a distributor on a substrate in an integrated manner.

[Construction] A satellite broadcast tuner includes a substrate 18 in a casing such that the substrate has thereon a distributor circuit 13 for splitting a signal input from an antenna input terminal 11 into a plurality of reception signal components and a tuner circuit 14 for receiving the satellite-broadcast-reception signal components split in the distributor circuit 13.

12: BOOSTER

13: DISTRIBUTOR

16a: ATTENUATOR

16b: ATTENUATOR

21: FILTER

22: AMPLIFIER

24: FILTER TRACKING

25: AMPLIFIER

27: MIXER

28: OSCILLATOR

29: FREQUENCY DIVIDER

32: AMPLIFIER

33: SURFACE ACOUSTIC WAVE FILTER

34: AMPLIFIER

35: FM DETECTOR CIRCUIT

* NOTICES *

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CLAIMS

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(57) [Utility model registration claim]
[Claim 1] The booster-circuit section into which the signal from an antenna input terminal is inputted, and the distributor circuit section which distributes the signal from this booster-circuit section to two or more signals for reception, Tuner equipment for satellite broadcasting reception characterized by forming the tuner circuit section for satellite broadcasting reception into which the signal distributed by this distributor circuit section is inputted through the attenuator circuit section for tuners, and the signal output terminal for television reception connected to this distributor circuit section through the attenuator circuit section for output terminals on one substrate which it had in the case.

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DETAILED DESCRIPTION

[Detailed explanation of a design]
[0001]
[Industrial Application] This design is related with the tuner equipment for satellite broadcasting reception.
[0002]
[Description of the Prior Art] Conventionally, the tuner equipment for satellite broadcasting reception is constituted as shown in drawing 2 . That is, by carrying out frequency conversion to an intermediate frequency signal, amplifying in drawing 2 , after the tuner equipment 1 for satellite broadcasting reception amplifying the signal from the antenna input terminal 2 which may be connected to an antenna and choosing the RF signal of the frequency band of a request channel by the tuning circuit, and detecting, the whole is constituted as one unit mounted in the case 4 so that it may output from the television signal output terminal 3.
[0003] Thus, in the usual case, the constituted tuner equipment 1 for satellite broadcasting reception is used as shown in drawing 2 . Namely, after the distributor 5 mounted in the case 7 divides into two signals for satellite broadcasting reception the signal for satellite broadcasting reception inputted from an antenna, One of the signals for satellite broadcasting reception of these is inputted into the tuner equipment 1 for satellite broadcasting reception from the antenna input terminal 2. The television signal outputted from the television signal output terminal 3 of this tuner equipment 1 for satellite broadcasting reception It is made to display on display units, such as the Braun tube, or is made to record on videotape on videotape etc. from inputting into the input terminal of a TV apparatus or video equipment.
[0004] In addition, through an output terminal 6, by being inputted into the antenna input terminal of a TV apparatus or video equipment, the signal for satellite broadcasting reception is received, it displays on the Braun tube etc. or another [which was divided by the distributor 5] signal for satellite broadcasting reception is recorded on videotape.
[0005]
[Problem(s) to be Solved by the Device] However, in the tuner equipment 1 for satellite broadcasting reception constituted in this way, since the tuner equipment 1 for satellite broadcasting reception and the distributor 5 were another objects, while equipment was enlarged, there was a problem that assembly will become troublesome.
[0006] This design aims at offering the small tuner equipment for satellite broadcasting reception with assembly easy simply [composition] in view of the above point by building a distributor into the substrate in the tuner equipment for satellite broadcasting reception in one.
[0007]
[Means for Solving the Problem] The booster-circuit section into which the signal from an antenna input terminal is inputted according to this design in the above-mentioned purpose, The distributor circuit section which distributes the signal from this booster-circuit section to two or more signals for reception, The tuner circuit section for satellite broadcasting reception into which the signal distributed by this distributor circuit section is inputted through the attenuator circuit section for tuners, The signal output terminal for television reception connected to this distributor circuit section through the attenuator circuit section for output terminals is attained

by the tuner equipment for satellite broadcasting reception characterized by being formed on one substrate which it had in the case.
[0008]
[Function] According to the above-mentioned composition, since the distributor circuit section for processing the signal for satellite broadcasting reception is formed on the substrate within a case with the tuner circuit section for satellite broadcasting reception, all the circuit sections will be incorporated by one in this case, while composition is easy, assembly will be easy and ** may also be constituted small.
[0009]
[Example] Hereafter, based on the example shown in the drawing, this design is explained in detail.
[0010] The view 1 shows one example of the tuner equipment for satellite broadcasting reception by this design.
[0011] The booster-circuit section 12 into which the signal from the antenna input terminal 11 with which the tuner equipment 10 for satellite broadcasting reception should be connected to the antenna which is not illustrated is inputted, The distributor circuit section 13 which the signal from this booster-circuit section 12 is inputted, and is distributed to two signals for satellite broadcasting reception, Attenuator circuit section 16b for tuners which one of the signals for satellite broadcasting reception distributed by this distributor circuit section 13 is inputted, and is connected with the tuner circuit section 14 for satellite broadcasting reception, The distributor section 19 which consists of attenuator circuit section 16for output terminals a which another [which was distributed by this distribution circuit section 13] signal for satellite broadcasting reception is inputted, and is connected with the signal output terminal 17 for television reception. A filter 21, amplifier 22, AGC circuit 23, a tracking filter 24, amplifier 25, the RF section 43 that consists of AGC circuit 26. Mixer 27, transmitter 28, and dividing term 29, the frequency-conversion section 44 which consists of a PLL circuit 30. AGC circuit 31, amplifier 32, a surface acoustic wave filter 33, the IF section 40 that consists of amplifier 34. The recovery section 41 which consists of an FM detector circuit 35. It consists of the tuner circuit section 14 for satellite broadcasting reception which consists of a block of four **.
[0012] The inside T1 of drawing is the power terminal of the booster-circuit section 12. T2 is the local dispatch control-voltage terminal of the PLL circuit 30.
[0013] If the tuner equipment 10 for satellite broadcasting reception is explained here and the signal from an antenna will be inputted into the antenna input terminal 11, after this signal raises gain by the booster-circuit section 12, it will be divided into two signals for satellite broadcasting reception by the distributor circuit section 13.
[0014] By this one [this] signal for satellite broadcasting reception Gain is adjusted by attenuator circuit section 16b for tuners, and it is inputted into the tuner circuit section 14 for satellite broadcasting reception. the above-mentioned tuner circuit section 14 for satellite broadcasting reception After amplifying an input signal in the RF section 43 and choosing the RF signal of the frequency band of a request channel by the tuning circuit in the frequency-conversion section 44, by carrying out frequency conversion to an intermediate frequency signal, amplifying in the IF section 40, and detecting in the recovery section 41 It outputs from the television signal output terminal 15.
[0015] From inputting this television signal into the input terminal of the TV apparatus which is not illustrated or video equipment in this way, it is displayed on display units, such as the Braun tube, or is recorded by videotape etc. on videotape.
[0016] Moreover, after gain is adjusted by attenuator circuit section 16a for output terminals, by being outputted from the signal output terminal 17 for television reception, and being inputted into the antenna input terminal of a TV apparatus or video equipment which is not illustrated further, television broadcasting can be received, and another [that was divided by the distributor circuit section 13 / this] signal for satellite broadcasting reception can be similarly displayed on the Braun tube etc., or can be recorded on videotape.
[0017] Each above-mentioned circuit section is formed on one substrate 18 which it had in the case (not shown), and each circuit section of each is divided with the shield board as drawing 1 .

[0018]
[Effect of the Device] According to this application design, the small tuner for satellite broadcasting reception with assembly easy simply [composition] may be offered like by [which were described above] including the booster-circuit section, the distributor circuit section, and the attenuator circuit section in one substrate in the tuner equipment for satellite broadcasting reception in one.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the block diagram showing one example of the tuner equipment by this design.
[Drawing 2] It is the block diagram showing an example of conventional tuner equipment.
[Description of Notations]
10 Tuner Equipment for Satellite Broadcasting Reception
11 Antenna Input Terminal
12 Booster-Circuit Section
13 Distributor Circuit Section
14 Tuner Circuit Section for Satellite Broadcasting Reception
15 Television Signal Output Terminal
16a The attenuator circuit section for output terminals
16b The attenuator circuit section for tuners
17 Signal Output Terminal for Television Reception
18 Substrate
19 Distributor Section

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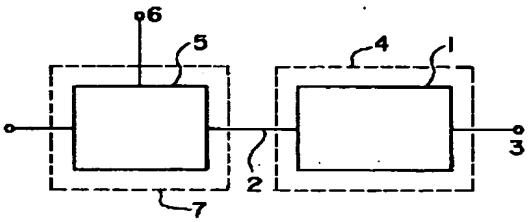
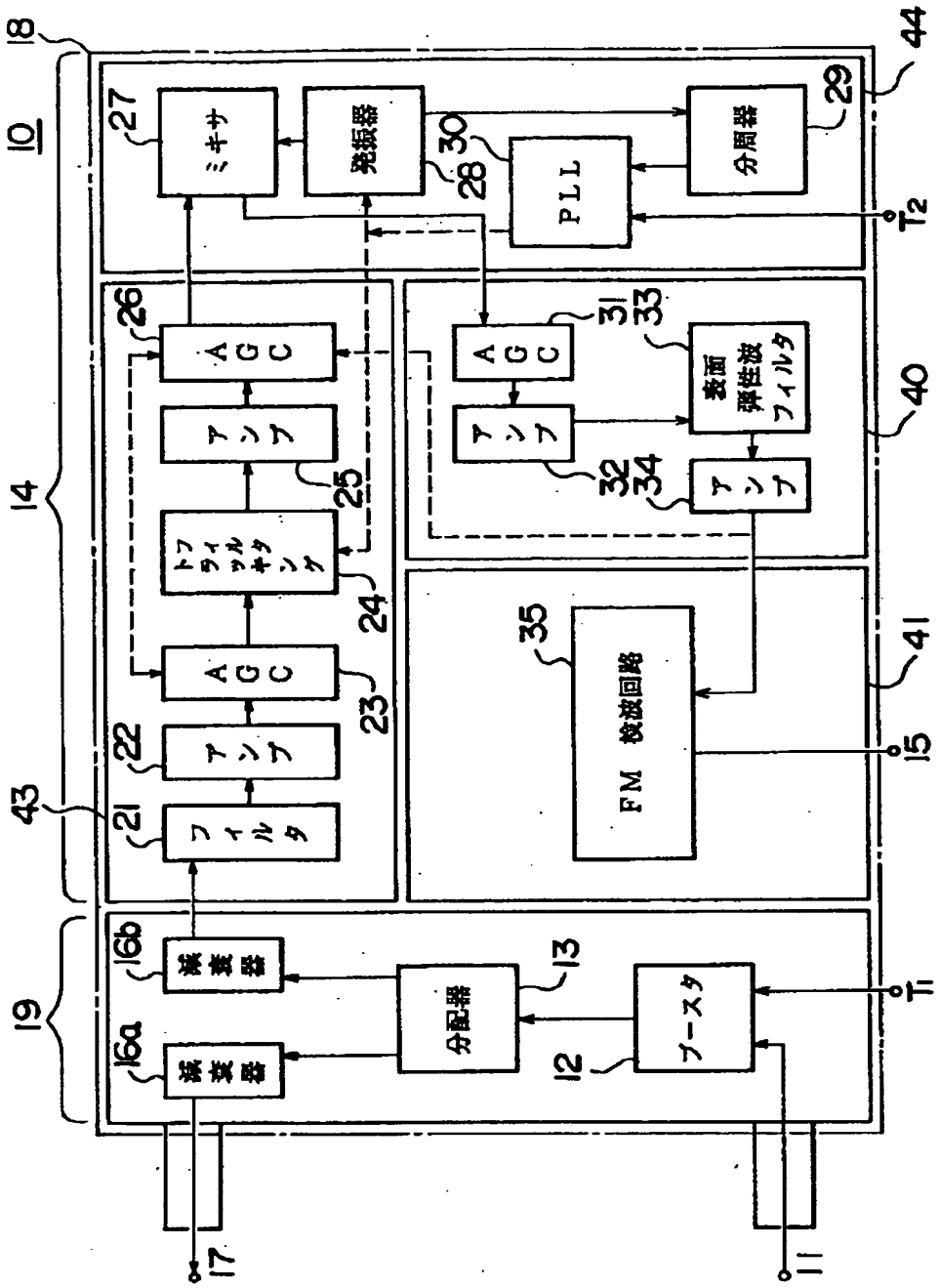
DRAWINGS

[Drawing 2]



[Drawing 1]



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